

GAME ANIMAL SAMPLING

Purpose This Meteorology and Air Quality Group (MAQ) procedure describes the methods of collection of samples from game animals.

Scope This procedure applies to the the individual assigned to collect meat from game animals as part of the Foodstuffs Monitoring Program.

In this procedure This procedure addresses the following major topics:

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General information about this procedure

Attachments This procedure has the following attachments:

Number	Attachment Title	No. of pages
1	Hazard Review	2

History of revision

This table lists the revision history and effective dates of this procedure.

Revision	Date	Description Of Changes
0	10/4/96	New document.
1	3/99	Reformatted in accordance with LIR300-00-01, Safe Work Practices.
2	4/01	Added new Section 9.0, Training.
3	4/02	Change in directorate.
4	4/03	Team name change to Environmental Surveillance.
5	5/12/04	Updated and reformatted document to conform with MAQ procedures.
6	05/31/05	Quick-change revision to convert HCP to HR, remove chain-of-custody form, and refer to new c-of-c procedure.

Who requires training to this procedure?

The following personnel require training before implementing this procedure:

- MAQ personnel assigned to collect game animal samples

Training method

The training method for this procedure is **on-the-job** training by a previously-trained individual and is documented in accordance with the procedure for training (MAQ-024).

Annual retraining is required and will be by self-study (“reading”) training.

Prerequisites

In addition to training to this procedure, the following training is also required prior to performing this procedure:

- First Aid
- Cardiopulmonary Resuscitation (CPR)
- RRES-DO-Field, “General Field Safety for All Employees”

General information, continued

Definitions specific to this procedure

Foodstuffs: produce (fruits, vegetables, and grains), fish (surface feeders and bottom feeders), eggs, milk, brewed tea, honey, and game animals.

References

The following documents are referenced in this procedure:

- MAQ-024, “Personnel Training”
 - MAQ-026, “Deficiency Reporting and Correcting”
 - MAQ-708, “Recording Chain-of-Custody Data for Soil, Foodstuffs, and Biota Samples”
 - RRES-DO-Field, “General Field Safety for All Employees”
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Note

Actions specified within this procedure, unless preceded with “should” or “may,” are to be considered mandatory guidance (i.e., “shall”).

Worker safety

Precautions and limitations

This document establishes the basic requirements for collecting game animal samples. Work performed under this procedure by LANL personnel will occur only after required training to applicable documents has been completed and documented.

Safe Work Practices requirements

Project Personnel - A minimum of two people is required to go out in the field.

Personal Protective Equipment - For game animal sampling, the following personal protective equipment must be worn: safety glasses, safety/field shoes, rubber gloves, Kevlar safety gloves when using knife, face shield when cutting up game samples, and a hat when outdoors.

Do not perform work under conditions you consider unsafe. Before beginning work described in this procedure, review safety needs and requirements, identify hazards, and develop hazard mitigation measures.

Collection of samples

Sample types Game animal sampling is done on recently killed deer and elk (usually roadkill) and are collected as deer and elk become available to the Environmental Surveillance Team.

Sample locations Most samples are collected from on-site or perimeter areas of LANL by MAQ personnel. Some samples of elk and deer are collected from regional (background) locations by New Mexico Department of Game and Fish personnel who call the Environmental Surveillance Team. One or more team members then go and pick up the samples from Game and Fish personnel.

Number of samples The following table lists the approximate number of samples to be collected at on-site, perimeter, and regional locations. The actual number depends on the amount of road kill available in any particular year.

	Muscle and/or Organs	Bone
On-site	1 to 5	1
Perimeter	1 to 5	1
Regional	1 to 5	1

Equipment needed Additional specific equipment required for going into the field is given in the operating procedure MAQ-Field, "General Field Safety All Employees". The following equipment is required for game animal sampling:

- disposable plastic bags (e.g., trash bags)
- ice chest with ice
- sharp knife
- meat saw
- cut-resistant (Kevlar) gloves
- face shield
- chain-of-custody forms prepared according to MAQ-708

Before leaving for the field Identify a Point-of-Contact (providing pertinent information of destination, expected time-in, and how to notify field team). When leaving Los Alamos County, notify group office to be placed on travel status. Check condition of vehicle and the fuel level. Ensure that you have a working cell phone and a pager.

Collection of samples, continued

Steps for collecting game animal samples

New Mexico Department of Game and Fish reserve conservation officers at LANL generally notify MAQ's Environmental Surveillance Team about road kill. For each game animal sample, perform the following steps.

Step	Action
1	If information about road kill has come from a different source, notify the Laboratory's Department of Game and Fish reserve conservation officer. Currently, that is Manuel L'Esperance (667-6211).
2	Travel to the sampling location to collect meat and bone for analysis. Since reported locations may not be precise, carefully survey the area for the sample when approaching the site. Also, identify a safe place (<i>e.g.</i> , a turn-out next to the road) to stop the vehicle as close to the animal as possible.
3	If needed, move the animal carcass to a safer location off the pavement and as far from traffic as practical.
4	With cut-resistant gloves on, remove a sample of meat from the femur and/or shoulder areas with a clean, sharp knife (or meat saw, as required). (Organs are taken from specimens given to us by the Game and Fish Department but not from roadside samples.)
5	Place the sample in a plastic bag and pack on ice for transport back to the laboratory.
6	Complete a chain-of-custody form according to the steps in MAQ-708 with the appropriate sampling information. Maintain proper chain-of-custody procedures for samples (See Chapter <i>Chain-of-custody for samples</i>) until submitted to the analytical laboratory for analysis (Paragon Analytics, Inc., Fort Collins, CO).
7	Once at the lab, store the sample on ice or in a freezer until processing (normally within two working days). Follow preparation and processing methods described in MAQ-706 (<i>Processing and Submitting Samples</i>).

Chain-of-custody for samples

Maintaining custody of samples

A sample is physical evidence collected from a facility or the environment. Chain-of-custody must be documented for all samples used to demonstrate compliance. Verify that the possession and handling of samples is traceable at all times. A sample is considered in custody if it is one of the following:

- In one's physical possession.
- In one's view after being in one's physical possession.
- In one's physical possession and then locked up so that no one can tamper with it.
- Kept in a secure area where access is restricted to authorized and accountable personnel only.

NOTE: A secured area is an area that is locked, such as a room, cooler, vehicle, or refrigerator. If the area cannot be secured by locking, use a custody seal to secure the area or the sample container.

Transferring custody of samples

Whenever samples are transferred into the custody of another person or organization, complete the "relinquished by/received by," "date," and "time" sections of the form. These sections of the form must provide a complete history of custody of the samples from collection to transfer to the analytical laboratory.

If chain-of-custody is broken

Whenever there is a break in the chain of custody of a sample, document the failure by initiating a deficiency report in accordance with the procedure for deficiencies (MAQ-026). [The deficiency process will document the occurrence, evaluate the potential impact (if any) on the samples, and propose a fix to prevent recurrence.]

Records resulting from this procedure

Records

The following records generated as a result of this procedure are to be submitted **within one year** as records to the records coordinator:

- Chain-of-Custody Record (created according to MAQ-708)

HAZARD REVIEW FOR GAME ANIMAL SAMPLING

Work tasks/Steps	Hazards, Concerns, and Potential accidents; Likelihood/ Severity	Controls, Preventive Measures (e.g., safety equipment, administrative controls, etc.)	Hazard Level from IMP 300-00-00 Hazard Grading Matrix
Task: Collect samples as described in this procedure.	Oncoming vehicular traffic improbable/catastrophic = medium	If you are collecting a sample from a roadkill on the side of a road, park your vehicle as close to the animal as possible and activate the hazard lights. Be cognizant of the fact that you are next to a road and be aware of oncoming traffic. Move animal off pavement and as far away from traffic as practical.	Moderate
Same as above.	Use of knives improbable/moderate = minimal	Use care when cutting and wear cut-resistant (Kevlar) gloves.	Low
Same as above.	Handling heavy objects (loading/unloading/transporting/postioning) Occasional / moderate = low	Use proper lifting techniques.	Low
Same as above.	Blood-borne pathogens improbable/critical = low	wear safety glasses and gloves.	Low

Wastes or residual materials resulting from process

After processing, bag all animal parts not used and dispose at the LA area landfill. Do not place animal parts into any dumpster.

Emergency actions to take in event of control failure For all injuries, provide first aid and see that injured person is taken to Occupational Medicine (only if immediate medical attention is not required) or the nearest hospital. Notify supervisor and group office as soon as possible.